Amendments to the claims

DRIGGS ET AL

 (Currently amended) A method of laminating a circuit board comprising the steps of:

providing a first layer having a substrate of dielectric material having a conductive signal plane thereon, said signal plane having at least one surface with a first portion having a first roughness;

forming said signal plane into signal lines and lands;

thereafter selectively roughening at least a second portion of said first at least one surface to form a second surface having a second roughness greater than said first roughness;

providing a second layer comprised of a voltage plane as a single sheet of foil erdisposed on a substrate of dielectric material; and laminating said first layer to said second
layer with a sticker sheet therebetween to form a composite structure; said signal plane and
said voltage plane being oriented toward each other;

said composite structure being formed with plated through holes surrounded by said lands.

- 2. (Currently amended) The invention as defined in claim 1 wherein said <u>first</u> portion of said second surface of said signal plane includes said lands surrounding said plated through holes.
- 3. (Currently amended) The invention as defined in claim 2 wherein said second roughness of said at least one surface of said second portion of said signal plane has an R_z value greater than about 3 microns.

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- 4. (Currently amended) The invention as defined in claim 2 wherein the <u>first</u> roughness of said at least one surface of said signal plane has an Rz value of less than about 1 micron.
- 5. (Currently amended) The invention as defined in claim 2 wherein the said first roughness of said at least one surface of said first portion of said signal plane has an R_z value less than about 1 micron, and the said second roughness of said second surface of said signal plane has an R_z value greater than about 3 microns.
- 6. (Currently amended) The invention as defined in claim 2 wherein said first portion of said signal plane has a plurality of said surfaces with a first said roughness.
- 7. (Currently amended) The invention as defined in claim 6 wherein said plurality of surfaces of said first portion of said signals plane include at least three surfaces.
- 8. (Currently amended) The invention as defined in claim 1 wherein said voltage plane has a first portion with at least one surface with a first surface roughness aligned with the first portion of said signal lines, and a second portion having a second surface with a surface roughness greater than the surface roughness of said at least one surface of said first portion thereof.

- 9. (Original) The invention as defined in claim 8 wherein said first portion of said surface of said voltage plane has an R_z value surface roughness of less than about 1 micron and said second portion of said surface of said voltage plane has an R_z value of greater than about 3 microns.
- 10. (Currently amended) The invention as defined in claim 1 wherein said roughened surfaces of said signal plane having a second roughness are roughened by treating the copper surface with an oxide or an oxide replacement process, or having plated thereon zinc, brass, nickel or chrome.
- of said signal plane having said second roughness is created by applying a photoresist material to said voltage signal plane, then exposing and developing said photoresist to reveal the surface to have said second roughness, then treating said second surface to have said second roughness, then treating said second surface to have said second roughness, then treating said second surface to have said second roughness to provide the desired surface roughness, then removing the photoresist.
- 12. (Currently amended) The invention as defined in claim $\frac{1}{2}$ wherein said surface on said voltage plane having said second roughness is created by,

applying a masking material to all of the areas of said voltage plane that are not to have said second roughness,

then roughening those areas to have said second roughness.

- 13. (Currently amended) The invention as defined in claim 8 wherein said roughened surfaces <u>having said second roughness</u> are roughened by treating the copper surface with an oxide or an oxide replacement process, or having plated thereon zinc, brass, nickel or chrome.
- 14. (Currently amended) The invention a defined in claim 8 wherein said surface on said voltage plane having said second roughness is created by applying a photoresist material to said voltage plane, then exposing and developing said photoresist to reveal the surface to have said second roughness, then treating said second to have said second roughness surface to provide the desired surface roughness, then removing the photoresist.
- 15. (Currently amended) The invention as defined in claim 8 wherein said surface on said voltage plane having said second roughness is created by,

applying a masking material to all of the areas of said voltage plane that are not to have said second roughness,

then roughening those areas to have said second roughness.